



DDMS

Design & Data Management System

Expanding the Universe

Source of Acquisition
NASA Johnson Space Center

Design and Data Management System

Johnson Space Center, Houston Texas

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DDMS, Engineering



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PDM initiative, Why?

Configuration management of design data

Knowledge capture and sharing

Defining our business model



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DDMS Strategy

Commercial Off the Shelf (COTS) products

Determine Return on Investment (ROI)

Teaming infrastructure

Johnson Space Center

- **Engineering-** Develops processes requirements for data products
- **Information Systems-** Hardware, Software, Windchill Customization
- **Quality Assurance-** Definition of processes and requirements

Manned Space Flight Centers collaboration

- **Johnson-** Engineering/Program office
- **Marshall-** Engineering/Propulsions
- **Stennis-** Engineering/Propulsion testing
- **Kennedy-** Engineering/Integration and Vehicle processing



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Selecting COTS product

Market Survey to evaluate PDM market

Request for Proposal based on “Best Value for the Government”

Ease of customization

High level of functionallity for the world wide web

Dedicated

Request for Proposal written by Engineering and Information Systems

Response evaluation performed by Selection board



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Windchill at NASA

SLI

JSC

SSC



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DDMS Mission Statement

The Design and Data Management System (DDMS) Project is a cooperative effort between Engineering and Information Systems whose overall objective is to move toward an integrated approach to collecting, managing, warehousing and accessing its engineering design data.

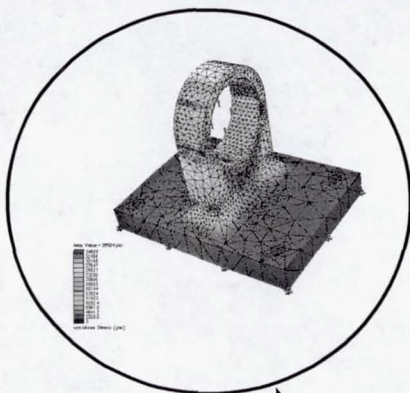


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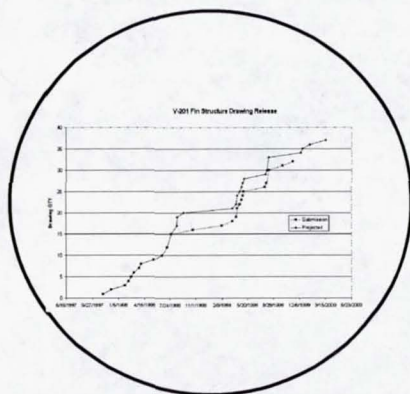
Analysis



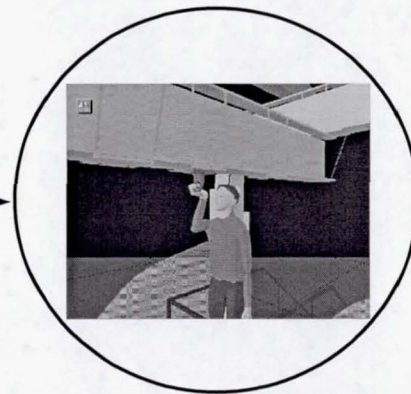
Feasibility



Metric - Estimate Vs Actual

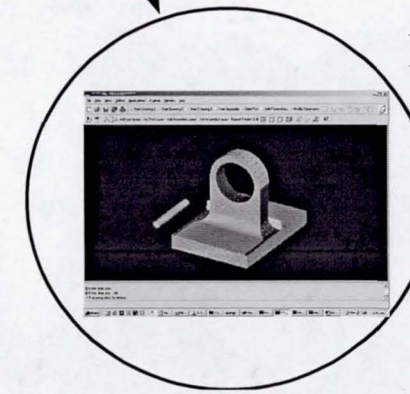


Integration



Certification

Manufacturing



VWAR
MRP

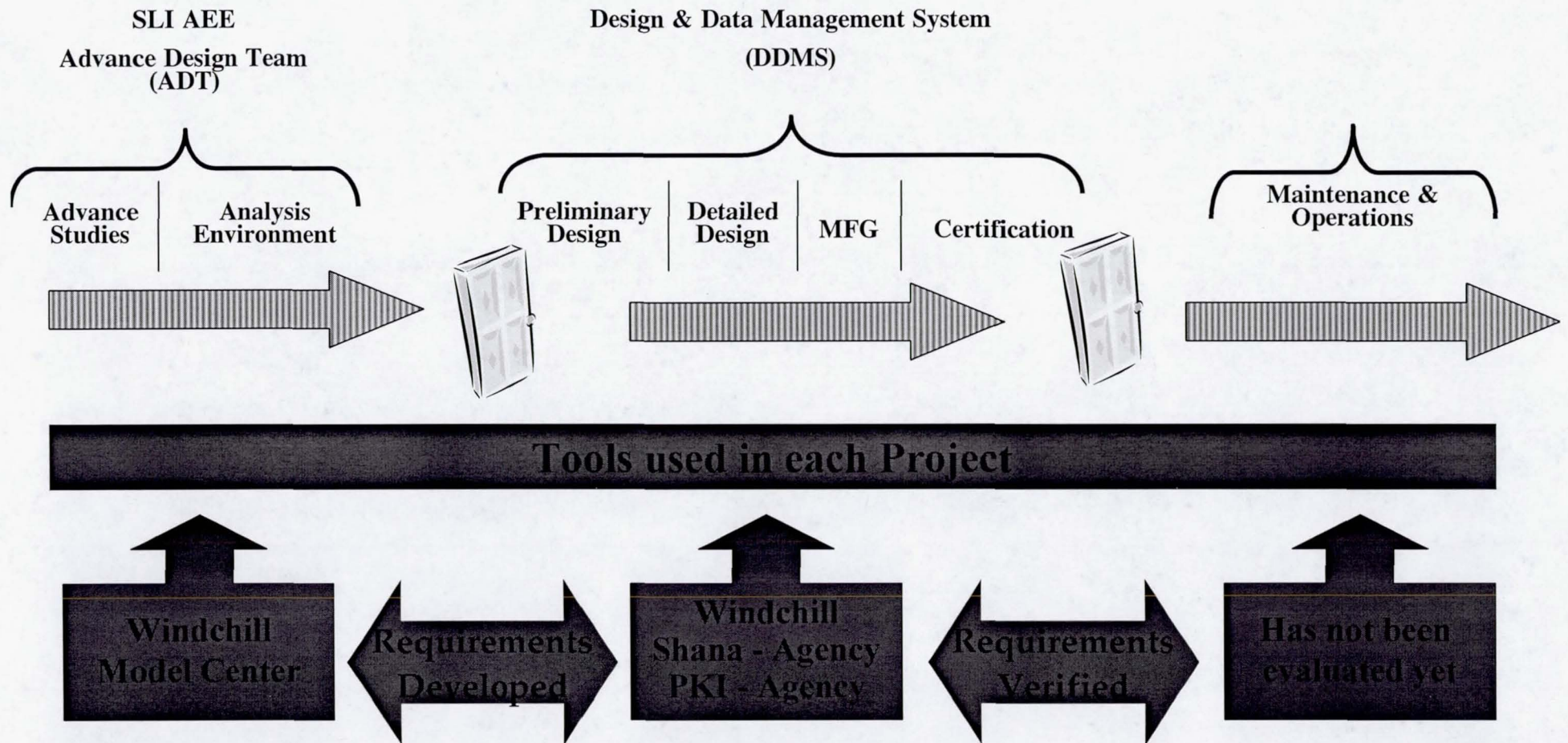


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Lifecycle of GFE hardware



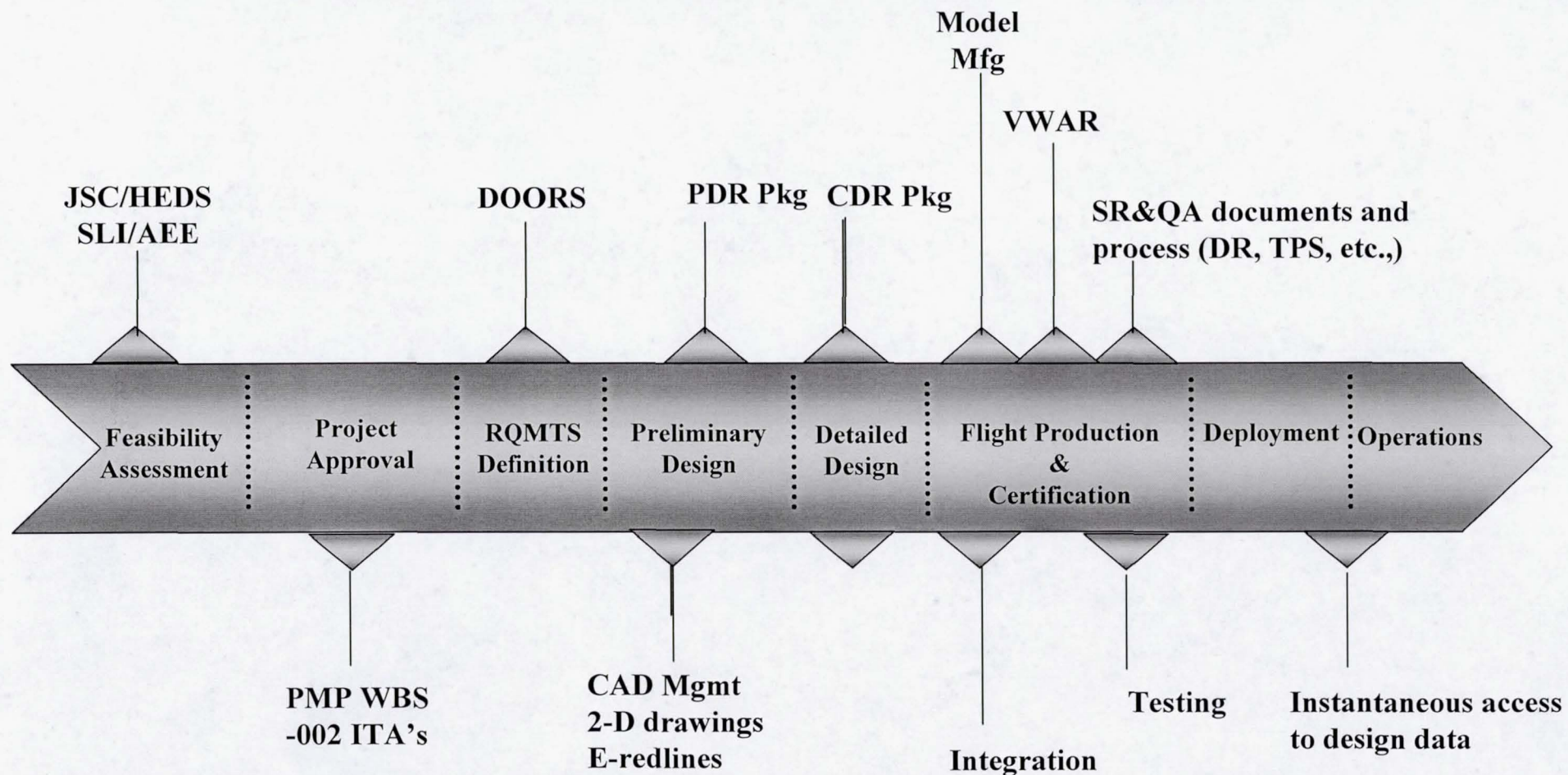


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Data Product





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General Goals of the DDMS

A large, simple line drawing of an open umbrella. The canopy is wide and rounded, with several curved ribs supporting it. The handle is a straight vertical line that ends in a large, thick, curved hook at the bottom. The text "Design & Data Management System" is centered within the canopy. Below the canopy, on either side of the handle, are two bulleted lists of goals.

Design & Data Management System

- Define business model in an electronic process
- Configuration control of electronic design data
- Pathway for contractors to deliver engineering data
- Visualization of the design process

- As designed, as built, & as maintained product structure : effectivity
- Integrate legacy databases/systems
- Tie to MRP systems at NASA
- Requirements traceability
- "TRUE" Collaborative engineering